VALUE ADDED TAX AND ITS EFFECT ON REVENUE GENERATION IN NIGERIA

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ABSTRACT

This study examined value added tax and its effect on revenue generation in Nigeria. Specifically, the study examined the effect of consumption tax on total government revenue in Nigeria, personal income tax on oil revenue in Nigeria, goods and service tax on non-oil revenue in Nigeria and company income tax on total public borrowing in Nigeria. Secondary data were used in the study. Data were sourced from Central Bank of Nigeria (CBN) statistical bulletin, Budget office of the Federation, as well as the World Bank Development Indicator Database. Collected data covered the period of 20 years spanning from 1999-2019. Data collated were analysed using both descriptive and Vector Error Correction Model method of analysis. Descriptive analysis conducted in the study include the mean, standard deviation, Kurtosis, and Jarque-Bera statistics of each variable. The findings revealed that there was presence of co-integration (long-run relationship) among the variables in the model, actual public consumption tax and personal income tax had 0.699243 and 1.798114 (P=0.0043, 0.0034) respectively significant relationship with revenue generation in Nigeria, while goods and service tax and revenue generation (0.209789, (P=0.0911) are not significantly related to revenue generation of the country in the long run. The study therefore concluded that there is significant relationship between consumption tax and revenue generation in Nigeria. Likewise, the result of the study concluded that value added tax is beneficial to the Nigeria economy, and the research, shows that value added tax is statistically significant to revenue generation in Nigeria. From the findings, for Nigeria to attain its economic growth and development, Nigeria must be able to generate enough revenue in order to meet up with the challenges of her expenditures in term of provision of social amenities and the running costs of the Government. The result of this research work recommend that government should ensure efficiency and effectiveness in the discourse of tax administration and that if more goods and services are taxed, the revenue base of the country will increase both in the long run and short run

Keywords: Company Income Tax, Value Added Tax, Personal Income Tax, Oil revenue and Non-Oil revenue.

INTRODUCTION

One of the basic challenges facing Nigeria government is dwindling revenue generation on yearly bases which is reflected on budget deficits as a result of insufficient funds to gear up economic growth and development. The economy of the nation depends on the revenue generated to enhance social infrastructure need of government and indicates apart from strengthening the existing sources of revenue, it is imperative for government to create another source of revenue generation in order to meet its constitutional responsibilities. Myles (2000) states that revenue generation is to enhance the financial capacity of any government in other to improve the wellbeing of its citizen, with these fiscal resources available and the way these resources are generated and managed. Meanwhile, it is the function of the government to effectively champion potential revenue within the country to prevent economic comatose. This encompasses the mobilization of revenue through acceptable taxes that would ensure government can meet up to its responsibilities and expenditure.

Tax is a compulsory charge ("levied") by a government on a particular product, income or activity. If tax is directly levied on personal or corporate income, then it is a direct tax, if tax is levied on the price of a good or service, then it is called an indirect tax. The purpose of taxation is to finance government expenditure and ensure the provision of basic amenities and protection against external aggression.

According to Ariyo (2013), developing countries are required to collect tax revenue, an amount greater than 10-15 percent. Taxation is a major instrument to boost the potential for public sector performance, to finance the social insurance program and for the repayment of public debt. A country’s revenue generation primarily depends upon its sufficient capacity to tax more in both economic and administrative term.

Nigeria is a developing country and emerging economy whose economy depends on crude oil. Her other natural resources include; Natural gas, tin, iron ore, coal, limestone, lead, zinc and Arable land (Adebisi, & Gbegi, 2013). Value added tax (VAT) is one of the sources of revenue generation to boost infrastructural developments.

Value Added Tax (VAT) is a consumption tax that has been embraced by many countries across the world. Traditionally, income has been the main reason for taxes for a very long time. However, major tax reforms by many countries in recent times have led to the discovery of consumption as having potentials for higher yield and greater chances of success than income. Thus, emphasis has been shifted from income-based to consumption-based taxes in developed and developing economies. Again, of all the consumption-based taxes such as Custom and Excise duties, Import & Export duties, Sales and Purchase taxes, VAT is rated the highest in terms of yield and ease of administration.

Goods that are subject to VAT include, among others food, household appliances, electricity, water, land and buildings, computers, stationery, etc. Services subject to VAT include commercial services, electricians, plumbers, builders and professional services such as lawyers, doctors, accountants. VAT is a consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or service. Where the VAT collected on behalf of the government (output VAT) in a particular month is more than the VAT paid to other persons (input VAT) in the same month, the difference is required to be remitted to the government, on a monthly basis, by the taxable person (Adereti, Sanni, & Adesina, 2011).

This research therefore examined value added tax and its effect on revenue generation in Nigeria with the view of analysing the short and long run relationship between value added tax and revenue generation in Nigeria and to provide reasonable solutions and recommendations that will be geared to reveal the benefit of VAT on revenue generation in the country.

LITERATURE REVIEW

Related Conceptual Review

Value Added Tax (VAT)

Ajakaiye (2000) defined VAT as a “multi stage tax imposed on the value added to goods and services as they proceed through various stages of production and distribution and to services as they are rendered” which is eventually borne by the final consumer but collected at each stage of production and distribution chain. Ola (2001), said that, VAT is a tax paid at each stage of value added. It is a multi-stage tax which applies whenever goods and services are supplied by the producers. He also said that VAT are levied on the value gained or added on the products before being sold, VAT is an output tax less input tax. He went further to say that VAT is one of indirect taxes collected by the government in this case the incidence of tax is borne by either the producer or the final consumer or shared by both.

VAT is referring to as tax on consumption of goods and services. VAT was first introduced in Nigeria in 1994 to replace the sales tax. The decision to replace the sales tax with VAT was influenced by the fact that VAT is applied on a broader range of goods and services (including those that were exempted from sales tax), so it was meant to broaden government’s tax revenue base. Currently, VAT is charged at a rate of 5% on all goods and services.

Measurement of Value Added Tax

The mechanisms considered appropriate to measure Value Added Tax as used in this study are: Personal Income Tax (PIT), Company Income Tax (CIT), Goods and Services Tax (GST) and Consumption Tax (COT). They are explained below:

Personal Income Tax (PIT)

This is a form of tax paid on one's personal income as distinct from the tax paid on the firm's earnings. In an incorporated firm, the owners (shareholders) pay taxes on both their income (salary or dividend from the firm) and firm's income (profits). In partnerships and sole-ownerships, the tax is paid only once on the firm's profits.

Personal Income Tax is also a direct tax charged on the income of a person. In the context of personal income tax, a 'person' means an individual, a sole proprietorship (non-juristic person), communities and families and on executors and trustees (of an undivided estate). The tax is on the Pay as You Earn (PAYE) basis, that is the tax payable depends on how much is earned by the tax payer. The tax is easy to collect among civil servants as it is deducted from source by the appropriate authorities unlike the private sector who will have to file returns of each tax payer which in most cases is not done. The tax is payable to both the Federal Board of Inland Revenue and the state Board of Internal Revenue depending on the sector in which the tax payer is employed. The tax is regulated by the Personal Income Tax Act 2004 (Federal Inland Revenue Service, 2014).

Company Income Tax (CIT)

This is a percentage of the profit of a company accruing in, derived from, brought into or received in Nigeria. This tax is payable to the Federal Tax of Inland Revenue. The rationale behind the tax is to levy tax on the company which is juristic person as different from its shareholders as the company becomes a distinct legal entity at incorporation. The tax is regulated by the Companies Income tax Act 2004.

CIT was created by the Companies Income Tax Act (CITA) 1979 and has its root from the Income Tax Management Act of 1961. It is one of the taxes administered and collected by the Federal Inland Revenue Service (FIRS). The tax contributes significantly to the revenue profile of the Service. In 2016, the revenue target for Companies Income Tax is N1.877 trillion representing approximately 40percent of the total projected tax revenue of N4.957 trillion for the year. In filing for Companies Income Tax, audited financial statement are statutorily required. This necessitates the engagement of External Auditors to prepare and/or certify the accounts to be submitted. The returns should mandatorily be accompanied by the tax computations and capital allowances computations on qualifying assets of the company. The requirement for filing does not discriminate between small, medium or large taxpayers. To many taxpayers therefore, CIT is a complicated kind of tax, difficult to understand and to comply with (Federal Inland Revenue Service, 2014).

Goods and Services Tax (GST)

Goods and Service Tax is also known as Value Added Tax (VAT) in some countries good and sale tax is a type of broad-based consumption tax that covers all sectors of economy. It is imposed on a wide range of local and imported goods and services. Under this system, the tax is levied on the supply of goods and services at each stage from the supplier to the retail stage of production. Therefore, good and sale tax is only paid when consumer use the goods or products. It is also a form of indirect tax because the tax collection will be made by the sellers. The sellers will be the third party to collect the tax and will pay it to the Government. In other words, it is a kind of tax that will be borne by the end consumers rather than producers or suppliers (Jermsittiparsert, 2016; Pinto, 2001; Likitrattanaporn, 2018).

It was first introduced in France in 1968 (Kloeden, 1998). This tax was later introduced in other European countries as well (Kloeden, 1998). GST has been implemented in more than 160 countries around the world (RMCD 2018).

There were three classes of goods and services in Nigeria. The first one is the standard rated where supplies of goods and services are charged at the rate 6 percent. This means that when a consumer buys a product that falls under this standard category, business will impose 6 percent goods and sale tax to the consumer. At the same time, business is allowed to claim the input tax from the RMCD. The next class is known as zero-rated supplies, where business charged zero percent to the customer and still can claim input tax from the government. Lastly, the exempt supplies where business is not allowed to claim input tax credit when they bought the supplies. The business is also not eligible to impose output tax to their customer (Ling, Jusoh & Ishak 2018).

Consumption Tax (COT)

consumption tax is a component of value added tax levied at each stage of the consumption chain and borne by the final consumer of the product or service. Each person is required to charge and collect consumption at a flat rate of 5% on all invoiced amounts, on all goods and services not exempted from paying consumption tax, under the Value Added Tax Act 1993 as amended (Adereti, Sanni & Adesina, 2011). Where the VAT collected on behalf of the government (output VAT) in a particular month is more than the VAT paid to other persons (input VAT) in the same month, the difference is required to be remitted to the government, on a monthly basis, by the taxable person (Oserogho and Associates, 2008). Where the reverse is the case, the taxpayer is entitled to a refund of the excess consumption tax paid or more practically, to receive a tax credit of the excess VAT from the government. All exports are zero rated for consumption, i.e. no VAT is payable on exports. Also, VAT is payable in the currency of the transaction under which goods or services are exchanged.

Consumption taxes have a wider coverage since the cause of adverse variance can be adequately controlled under proper administration (Leach, 2003). The revenue generated from consumption taxes can help to boost the financial base of any economy. This however involves exploiting the potential and adopting the type of consumption tax that will recognize the tax payers as utility minimizing individuals and safeguarding their evading behaviour. The essential consideration I choosing a consumption tax option from other tax options includes; assessment of administrative feasibility of each tax and determining its relative revenue potentials, its relative revenue potentials, its degree of voluntary compliance, its relative neutrality, its equity essential for regressively and the efficiency of these criteria, one can easily see under lying reasons why government replaced a Retail Sales Tax (RST) with value Added Tax (VAT) as consumption tax.

Concept of Revenue Generation

Revenue is one of the sources of income generation. Hassan (2001) defined revenue as tolls, taxes, rates, fees, penalties, rents, forfeitures, dues and other receipts of government from whatever source arising over which legislature has power of appropriation including proceeds of loans raised. Section 160 (9) of the 1989 Federal constitution and section 5, 162 (10) of 1999 constitution defined revenue as any income or returns accruing to, or derived by the government from any property belonging to government, any return by way of interest on loans and dividends in respect of shares or interest held by the government, in any company or statutory body incidental sources resulting from a particular environment, permissive sources from normal operations and statutory sources recognized by the Nigerian constitution. For a successful revenue generation, revenue control is put in place to ensure timely collection of government revenue, and ensuring that amount due is actually collected as well as ensure that revenue generated are paid to the coffers of government.

Measurement of Revenue Generation

The mechanisms considered appropriate to measure revenue generation as used in this study are: Total Government Revenue (TGR), Oil Revenue (OR), Non-Oil Revenue (NOR) and Total Public Borrowing (TPB). They are explained below:

Total Government Revenue

Total government revenue is defined as all amounts of money received by a government from external sources for example those originating from “outside the government” net of refunds and other correcting transactions, proceeds from issuance of debt, the sale of investments, agency or private trust transactions, and intra-governmental transfers ((Ahmed, 2010). Financial resources of government constitute the bulk of its revenue and this relate to monies mobilized or generated in the economy (Obiechina, 2010).

Public revenue consists of taxes, revenue from administrative activities like fines, fees, gifts and grants. Public revenue can be classified into two types including: tax and non-tax revenue (Illyas & Siddiqi, 2010). Taxes are the first and foremost sources of public revenue. Taxes are compulsory payments to government without expecting direct benefit or return by the tax payer. The government collects tax revenue by way of direct & indirect taxes. (Chaudhry & Munir, 2010).

Total Public Borrowing

Total Public borrowing is domestic and foreign borrowing including loans from domestic financial institution and multilateral institutions and foreign grants. According to Oyejide (1985), debt is the resource or money in use in an organization, which is not contributed by its owner and does not in any other way belong to them. Debt can also be referred to as liability represented by a financial instrument or other formal equivalents. When a government borrows, the debt is a public debt. Public debts can be either internal or external.

Domestic debts are debts instrument issues by the federal government and denominated in local currency Onyeiwu (2012). Nigeria's domestic borrowing (debt) is aimed at escaping the dangers associated with external borrowings occasioned by rising government expenditures vis-à-vis falling government revenues, supplement the internal savings for productive activities through infrastructural development as well as management of other macroeconomic conditions of the country (Gbosi, 1998; Ajayi, 1989; Adofu & Abula, 2010). Arnone et al (2005) defines external debt as that portion of a country's debt that is acquired from foreign sources such as foreign corporations, government or financial institutions.

Oil and Non-Oil Revenue

However, according to Ihendinihu, Ebieri and Amaps Ibanichuka, (2014), two main sources of federal government revenue exist namely; oil and non-oil revenue. Revenue generated from oil and non-oil product serves as the main channel through which the government generate income to service its public goods. Oil revenue was seen as a blessing to Nigeria economy because it contributed massively to income generated in the country, but then it was also seen as a curse as it gave rise to the neglect of the other sectors (Agbaeze & Ukoha, 2018). Meanwhile, the work of Nwosa and Ogunlowore (2013) attested that Nigeria ought to experience an increase in revenue and tax incentives as a result of enormous oil wealth located in the country which is essential in spurring up development in the country but the contrary is the case as the fall in price of global international oil market have led to the decrease in oil revenue in the country.

Non-oil revenues are revenues generated from sources other than the oil producing activities (such as petroleum revenue from the upstream activity and other oil related operations). Examples of non-oil revenue include revenues from companies not engaged in oil & gas explorations, such as Companies Income Tax, Personal Income Tax, Custom and Excise Duties and Value Added Tax, etc. Thus, tax imposed on these non-oil producing activities by the government is called non-oil tax, and the revenue realized by the government in the imposition of non-oil tax is known as non-oil tax revenue.

The Effect of Value Added Tax on Revenue Generation in Nigeria Economy

The purpose of taxation is to raise money for activities which cannot be pursued without government action. These include the public contribution to economic investment, as well as enabling people to meet their basic needs and enjoy wider opportunities. Without taxation, government cannot create a better society. VAT is a multi-level tax that is obtained in different steps of the production-distribution cycle based on percentage of the value added to the products or services. In fact, this tax is a kind of a multi-level tax on sales that exempts the indirect purchase of goods and services from tax.

The countries that performed VAT have a more per capita GDP level and are less dependent on the international trade (Ahmad, Mehrnoosh & Abedini 2012). Owolabi and Okwu (2011) empirically evaluated the contribution of VAT to the development of Lagos State economy. Development aspects considered included infrastructural development, environmental management, education sector development, youth and social development, agricultural sector development, health sector development and transportation sector development. VAT revenue contributed positively to the development of the respective sectors. The purpose of replacing trade taxes with domestic consumption taxes that is value added tax (VAT) was mainly to improve macroeconomic stability, and to introduce the benefits of free trade to developing economies.

THEORETICAL REVIEW

Benefits-Received Theory

This theory was propounded by Barthia (2009). According to this theory, the burden of taxation should fall on the people, according to the benefit received by them from the state. Every citizen should be called upon to pay the taxes in proportion to the benefits derived by him from the services rendered by the government. The idea behind this principle is that the public pays taxes in the form of return of the benefits conferred upon them by the government. The principle naturally proclaims the justice of do not take that to give. In other words, the collective payment of taxes by the public hold didn't exceed the value of benefits conferred upon them by the government. It is for the collective benefit that the taxes are levied, not for the individual benefit. The benefit approach has two implications: firstly, the benefit is used as a justification for taxation and secondly, it serves as a standard for apportioning tax burdens.

Musgrave Theory of Public Expenditure

Musgrave theory of public expenditure was propounded by Musgrave in (1969), it focused on infrastructural development such as health, education electricity, transportation system and other social amenities. It was built on the evolving functions of the public sector during the development stage and therefore relies on structural factors so as to explain government growth (Gemmell, 2013). According to Musgrave (1969), economies situated in an early development stage were faced with a high demand of public capital formation in order to install basic infrastructure etc. At later development stages, institutions for private capital formation become more advanced; hence the share of public expenditure can reduce (Musgrave 1969). Notably, the Musgrave theory related public sector financial management in terms of mobilization of resources towards public expenditure to economic progress both in short and long runs. Musgrave as he found changes in the income elasticity of demand for public services in three ranges of per capita income.

The External Borrowing Effects Theories

This theory was propounded by Wang in (2009), and it reported that developing countries engaging in reasonable levels of borrowing as source of revenue generation in other to improve their economic growth. Such enhancement is believed to occur through capital formation and increase in output Hameed et al (2008). According to the traditional neo-classical model, debt increases transitional growth, since the model permits capital mobility, and the ability to involve foreign sources in the process of both lending and borrowing. This gives capital-scarce countries an incentive to get a loan and invest since the marginal output of capital is greater than the global interest rate (Pattillo et al., 2002).

Studies have confirmed that foreign loans result in positive results which is another source of generating revenue to the country in other to boost their economy but to a certain level only if properly used. After reaching a certain threshold level the effects of additional debt on the economy will gradually drop. The reason for this from the economist point of view is one-fold. Capital in underdeveloped economies is limited, and especially that these nations see an encouragement to sign for foreign loans meant for investment in as much as the return on capital is above their cost of funds Pattillo et al (2002). Thus, External borrowing becomes an indispensable necessity. It is a devil every country must leave with (McKinnon, 2004). The most important consideration in contracting external debt is a simple and direct one; signing up for debt from abroad only when the funds can generate higher returns more than the cost of funds that were invested. Therefore, it follows that borrowing nations would be enhancing their productivity and national output via the investment facilitated by borrowed funds (Ogbonna & Appah, 2018).

The Resource Curse Theory

The resource curse theory was first used in the year 1998 by Auty, who tried to illustrate how rich countries blessed by natural endowment are unable to improve their economy even as this economy witnesses low pace of development compared to countries that are not blessed with natural resources. The resource curse theory also postulates that countries blessed with rich natural resource fail to develop the infrastructural projects and other sectors in their economy which eventually leads to financial problem. Little or no investment is redeployed back to the resource endowed country. Auty (1993) opined that countries with abundant natural resource are outrightly forced to depend on other nations for goods and services which they might eventually end up losing. The basic reason why countries that export their natural resource to foreign country lose is because revenue that is generated from exported product to other countries will eventually be used to purchase finished product at a high cost. According to Hardin (1968) he discovered that over exploitation of natural resource arises as a result of free access to natural resource thus, creating an avenue for socio-political crises and interstate crises which on the long run limits government from actively involving themselves in providing basic amenity.

RELATED EMPIRICAL REVIEW

Canavire-Bacarreza (2018) evaluate the effect of personal income tax, corporate income tax, general taxes on goods and services, including value added tax and other sales taxes, and revenues from natural resource) on economic growth using vector autoregressive techniques, and for close to the entire region and a worldwide sample of developing and developed countries using panel data estimation. They find that, for the most part, personal income tax does not have the expected negative effect on economic growth in Latin America. They also find small negative effects of corporate income tax on growth for individual countries, specifically Argentina.

Furceri and Karras (2017) researched to investigate the effects Value Added Tax Treatment of Public Bodies and Non- Profit Organizations by using an annual data from 1965 to 2007 for panel of twenty-six economies. The finding shows that the effect of an increasing in tax on real GDP per capita is negative and persistent where an increasing in the total tax rate which measures as the total tax ratio to GDP by 2% of GDP has a long-run effect on real GDP per capita of -0.5% to -1%. Besides, their findings also imply that the increase in social security contributions or taxes on goods and services has a large negative effect on per capita output than the increase in the income tax.

Jing Xing (2016) conducted a study to identify whether the tax structure affects economic growth by showing empirical evidence from OECD countries. In contrast to studies done before, they did not find solid footing for the different types tax terms' impact on growth. Based on the findings of the research, it shows that the shifts in the total tax revenue towards the property taxes may be associated with a higher steady-state level of the income per capita. In addition, this result also remains robust after the authors used different sample, different repressors and different specification of the time effects. The result also finds that there is no strong evidence for favouring the personal income tax over the corporate income tax or for the favouring the consumption tax over income tax.

Veronika and Lenka (2013) conduct a research about value added tax and their impact on economic growth: the case of EU countries. The aim of this research is to verify the expected negative relationship between corporate taxation and long-term economic growth. This research uses a sample which consist of 27 EU members countries for the period 1998 to 2010. The data collection is based on secondary research and quantitative and this research represent an annual time series. The data were get from statistical database of Eurostat, Penn World Table provides time series representing the share of investment, The regression analysis employed was based on the neoclassical growth model of Mankiw, Romer and Weil (2013), and he found that corporate income tax, personal income tax and social security contribution were harmful for economic growth.

Poulson and Kaplan (2012) carried out a study on the impact of value added taxes on economic growth in the United States of America using data covering the period 1974 – 2010. The results of their study revealed that higher marginal tax rates had significant negative impact on economic growth in the States

METHODOLOGY

This study adopted the ex-post facto research design. This design method was chosen because data used in this study were sourced from secondary materials and not manipulated. The secondary source of data collection method was used to generate data from the Federal Inland Revenue Service (FIRS) statistical bulletin of 2018 and the National Bureau of Statistics (NBS) bulletin of 2019 for the period 1994 to 2018.

Model Specification

The following mathematical model was developed to analyse the relationship between value added tax and revenue generation in Nigeria by specifying Total Government Revenue (TGR) as a proxy for Oil Revenue (OR) ,Non-Oil Revenue (NOR), Total Public Borrowing (TPB) which is a function of Value Added Tax measured in terms of Consumption Tax (COT), Personal Income Tax (PIT), Company Income Tax (CIT), and goods and service tax (GST).The model of this study made used of total public borrowing as control variable to fixed the effect of internal and external borrowing in the discourse of how value added tax influences revenue generation . Thus, the model of this study was specified in functional and linear forms as shown below:

where:

Y=Represent Revenue Generation measured by Total Government Revenue
β_1-β_5 = Partial regression coefficient attached to variable X_1, X_2, X_3, X_4, X_5

X_1-X_5 = Independent variables that significantly contributed to the variance of total government revenue.

α= the constant term
TGR=Total Government Revenue
CT= Consumption Tax
PIT= Personal Income Tax
CIT=Company Income Tax
GST=Goods and ServiceTax
TPB=Total Public Borrowing
β= the coefficient of the function
e = error term.

$$Y= \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \ldots\ldots 3.1$$

$$Y_{It}=\alpha_{it} + \beta_1 COT_{It} + \beta_2 CIT_{It} + \beta_3 PIT_{It} + \beta_4 TPB_{It} + \beta_5 GST_{It}\ \varepsilon_{it} \ldots\ldots 3.2$$

$TGR_{it} = f(COT_{it}, CIT_{it}, PIT_{it}, TPB_{it}, GST_{it})$...3.3

$TGR_{it} = \alpha + \beta_1 COT_{It} + \beta_2 CIT_{It} + \beta_3 PIT_{It} + \beta_4 TPB_{It} + \beta_5 GST_{It}$ ε_{it}...3.4

METHODOLOGY

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DATA ANALYSES AND INTERPRETATION OF RESULTS

Descriptive Statistics

The descriptive statistics of the variables used in this study were reported in Table 4.1. The table shows the mean, standard deviation, minimum, maximum, skewness, Kurtosis, and Jarque-Bera statistics of each variable.

Table 1: Descriptive Statistics

	TGR	COT	PIT	GST	CIT	TPB
Mean	57203.01	5634.560	6754.222	5673.561	2.122626	4.122E+10
Maximum	72323.61	6903.318	33336.85	31156.53	5.766694	6.533E+07
Minimum	56733.80	37.11384	13.60640	71.65740	0.346222	8.754E+22
Skewness	0.670332	0.727363	0.652678	3.504412	3.214666	0.644503
Kurtosis	3.015782	3.882388	4.270665	3.944227	6.224663	4.344845
Jarque Bera	3.757863	4.179443	3.748537	12.66713	88.12991	5.318843
Probability	0.154063	0.119795	0.195534	0.002243*	0.000000*	0.091731***
Sum	1070431.	54856.35	107694.8	144765.7	46.79300	9.62E+11
Sum Sq. Dev.	9.81E+09	1.07E+08	4.13E+08	1.10E+09	45.46678	1.44E+22
Observations	20	20	20	20	20	20

* denotes rejection of hypothesis of normal distribution at 10% significance level.

1*** denotes rejection of hypothesis of normal distribution at 1% significance level

Source: Researcher's Compilation (2020)

The result on Table 1 shows that TGR has a mean value of ₦57,203billion and ranges between ₦15,237 and ₦69,023billion during the period under review. COT has a mean value of ₦5,634.56billion and has a minimum and maximum value of ₦37.11 and ₦6,903.318billion respectively between 1989 and 2019. The mean value of CIT is ₦6,754billion with a minimum value of ₦13.60billion and a maximum value of ₦33,336billion for the period 1989-2019. GST stood at an average of ₦5,673billion during the period under review and fall between ₦71.65billion and ₦31,156billion. PIT has a mean value of 2.12% with a minimum and maximum value of 0.34% and

5.77% respectively. The mean value of TPB is ₦41.226billion with a minimum value of ₦875million and a maximum value of ₦65.2billion. The skewness statistic shows that all the variables are positively skewed. The Kurtosis statistic shows that all the variables have a thin-tailed distribution except GST and PIT. The Jarque-Bera statistic shows that all the variables are normally distributed except GST, PIT and TPB.

Table 2: Long-Run Results of the Effect of Value Added Tax on Revenue Generation in Nigeria

Variable	Coefficient	p-value
Constant	-3.555234	0.8812
lnTGR	0.848342	0.3266
lnCOT	0.699243	0.0043**
lnCIT	1.798114	0.0034***
lnGST	0.209789	0.0911
lnPIT	5.628457	1.7177**
lnTPB	-0.301745	1.3143***

Note: *** denotes statistically significant at 1% significance level respectively.

Source: Researcher's Compilation (2020)

As shown in Table 2 in the long run, lnCOT ,InCIT and lnGST are positive significantly related to lnTGR while lnTPB is negative significantly related to lnTGR. A 1% increase international trade increase total government revenue by approximately 0.62% respectively. However, an increase in total public borrowing would decrease total government revenue by approximately 0.31%. Table 4.4 also shows that lnGST is not significantly related to lnTGR.

Short Run Results

The short run results show the short run dynamics and the speed of adjustment. Table 3 presents the short run results.

Table 3. Short Run Results of the Effect of Value Added Tax on Revenue Generation in Nigeria

Variable	Coefficient	p-value
Δ(lnCOT)	0.036511	0.4531***
Δ(lnCIT)	0.228867	0.3942**
Δ(lnCIT(1))	0.065444	0.0477**
Δ(lnGST)	-0.202451	0.0222
Δ(lnPIT)	6.286225	0.2864
Δ(lnTPB)	-0.048444	0.0554***
Δ(lnTPB)(-1))	0.053325	0.1455
CointEq(1)	-0.112234	0.0041*

Note: *, **, and *** denote statistically significant at 1%, 5%, and 10% significance level respectively.

Source: Researcher's Compilation (2020)

Based on the ARDL model, the short-run results show that lnCOT has a contemporaneous positive and significant relationship with lnTGR. lnCIT have contemporaneous positive and significant relationship with lnTGR and one-period lagged value has a positive and significant relationship with lnTGR. lnGST has a contemporaneous positive and significant relationship with lnTGR. lnPIT have a contemporaneous relationship with lnTGR. lnTPB does not have a contemporaneous relationship with lnTGR. but its one-period lagged value will lead to positive and significant relationship with lnTGR. The lag error correction term CointEq(1), which measures the speed of adjustment to restore long-run equilibrium in the dynamic model has the expected positive sign and statistically significant at 1% significance level. This further validates the long-run relationship among the variables. The low coefficient of the error correction term shows that disequilibrium from the past year slowly adjusts back to the long-run equilibrium in the present year at a speed of adjustment rate of 11.4%.

SUMMARY OF FINDINGS

In line with the broad objective of this study which was to examine value added tax and its effect on revenue generation in Nigerian economy between 1999 to 2019 period/year, empirical analysis has been conducted and discuss of findings offered. Following the result of our investigation, we found out that:

1. Value added tax positive significant relationship with revenue generation since the coefficient of consumption tax passes the one percent significant test. This result suggests that consumption tax increases total government expenditure.

2. Personal income tax had a significant and a positive impact with oil revenue. On the basis of this we reject the null hypothesis but accept the alternative that personal income tax has increased the oil revenue.

3. Goods and service tax had negative significant relationship with non-oil-revenue tax. Judging from the outcome of our study, the level of non-oil revenue tax is another source of generating revenue to the government but has no correlation with the goods and service tax to enhances economy growth in Nigeria.

4. Company income tax had a positive significant relationship with total public borrowing since the P-value of company income tax less than the one percent significant test. This result suggests that total public borrowing will boost revenue generation if properly utilize

CONCLUSION

The result of the study concluded that value added tax is beneficial to the Nigeria economy. This can be understood from the behavior of the variables in this research, which shows that consumption tax is statistically significant to revenue generation in Nigeria. From the findings, for Nigeria to attain its economic growth and development, Nigeria must be able to generate enough revenue in order to meet up with the challenges of her expenditures in term of provision of social amenities and the running costs of the Government. The result of this study indicates that if more goods and services are taxed, the revenue base of the country will increase. We still recommend that the value added tax bases be widened to bring the informal sector into the value added tax net so as to stem possible evasion even by the so faithfully complying under the old rate.

RECOMMENDATIONS

Based on the research findings and conclusion, it is obvious that more revenue could be generated from VAT in the country. In this regard the following recommendations are made to improved VAT administration and voluntary compliance so as to boost the revenue generation in the country:

- There is a strong believe that well-informed taxpayer society can be considered as an important asset for the economy of one's country. Therefore, the authority/country should conduct a consistent awareness and training about the regulation and proclamation of VAT.

- The tax authority should adjust itself by strengthen skilled manpower to tackle the problem related to bureaucracy system. The results of the show that some tax payers are not know the rule and regulation of the VAT well. This leads to VAT administration problem. Therefore, the authority should strengthen its follow-up, training, appraise the performance of existing and recruit qualified employees, strengthen its controlling mechanisms, improve its administrative systems and in Nigeria education tax is not given as one department/subject now a day; to tackle such problem the government should give tax as one subject in lower and higher school and institutions.

- Given the dwindling revenue from petroleum related sources, the government should embark on the strategic pursuit of broadening the revenue generation to enhance economic growth and development.

- Government agencies should effectively devise procedures for the collection of company income tax as it contributes to revenue generation and regulate the rise in the level of interest rate in the country in order not to provoke price instability in the country as reported in the findings.

- Government should ensure to embrace strategies that will help to maintain adequacy of accounting procedure in the tax system in order to enhance VAT efficiency and government should increase the number of VAT agencies in the country to boost VAT productivity.

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